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## ANNUAL MEETING—APRIL 16, 17, 18, 1958 MEDICAL AND CHIRURGICAL FACULTY

The Committee on Scientific Work and Arrangements has a most interesting program, with many outstanding speakers, for the 1958 Annual Meeting of the Medical and Chirurgical Faculty. The scientific meetings this year will be held at the Alcazar, Cathedral and Madison Streets, Baltimore, on Wednesday, Thursday, and Friday, April 16, 17, and 18.

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BE SURE TO ARRANGE YOUR SCHEDULE SO THAT YOU WILL  
BE ABLE TO ATTEND THIS ANNUAL MEETING—APRIL 16,  
17, 18, 1958!

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### SCIENTIFIC SESSIONS

The Alcazar, Cathedral and Madison Streets, Baltimore

#### WEDNESDAY, APRIL 16, 1958

- 2:15 p.m. Medical and Surgical Treatment of Tuberculosis. Panel Discussion. Theodore L. Badger, M.D., Harvard Medical School, Boston. James H. Forsee, M.D., Walter Reed Army Hospital, Washington. Edmund G. Beacham, M.D., Baltimore City Hospitals.
- 3:25 p.m. Problems in the Treatment of Cancer. George Crile, Jr., M.D., Cleveland Clinic Foundation, Cleveland. (J. M. T. Finney Fund Lecture.)
- 4:05 p.m. Current Status of So-Called Collagen Diseases. Currier McEwen, M.D., New York University College of Medicine, New York City.

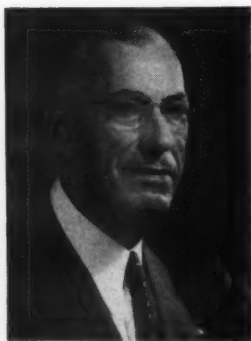
#### WEDNESDAY EVENING

- 8:30 p.m. A Concept of the Pathogenesis of Gastric and Duodenal Ulcer. Lester R. Dragstedt, M.D., The University of Chicago, Chicago. (I. Ridgeway Trimble Fund Lecture.)

*(Continued on next page)*

**THURSDAY, APRIL 17, 1958**

- 9:30 a.m. Therapeutic Suggestion and Hypnosis in Everyday Practice. (Demonstration of Patients.) Jacob H. Conn, M.D., The Johns Hopkins University School of Medicine, Baltimore.
- 10:00 a.m. Recent Advances in Oral Therapy for Diabetes. Garfield G. Duncan, M.D., University of Pennsylvania School of Medicine, Philadelphia.
- 10:40 a.m. Election of Board of Medical Examiners.
- 11:00 a.m. Value of Gamma Globulin in Pediatric and General Practice. David Gitlin, M.D., Harvard Medical School, Boston.
- 11:40 a.m. Present Day Challenges in Cardiac Diagnosis. Howard B. Sprague, M.D., Harvard Medical School, Boston.
- 12:30 p.m. **ROUND TABLE LUNCHEON.** Park Plaza Hotel, Charles and Madison Streets. There will be 25 tables with moderators on subjects of interest to everyone. A list of these will be mailed to members early in April.
- 2:30 p.m. Recent Advances in the Diagnosis and Treatment of Cerebral Vascular Diseases. Irving S. Wright, M.D., Cornell University Medical Center, New York.
- 3:10 p.m. The Therapeutic Use of Diuretics. John Henry Moyer, M.D., Hahnemann Medical College, Philadelphia.
- 3:45 p.m. Hiatal Hernias. Brian Blades, M.D., The George Washington University School of Medicine, Washington.
- 4:15 p.m. Clinical Assistance from Exfoliative Cytopathology. John K. Frost, M.D., University of Maryland School of Medicine and The Johns Hopkins University School of Medicine, Baltimore.

**THURSDAY EVENING****PRESIDENTIAL DINNER—SHERATON BELVEDERE HOTEL**

DAVID B. ALLMAN, M.D.

The Presidential Dinner will once again be held in the Charles Room of the Sheraton Belvedere Hotel at 7:00 p.m. on Thursday evening, April 17. Those attending the Dinner are invited to be the guests of the Baltimore City Medical Society at a cocktail party, which will precede the Dinner and which will be held at 6:00 p.m. in the Jubilee Room of the Hotel.

The Dinner will be followed by the General Meeting at 8:15 p.m. in the Charles Room. The guest speaker at this meeting will be Dr. David B. Allman, President of the American Medical Association, whose subject will be, "MEDICAL SCIENCE: MAN'S TRUE GLORY."

All members are invited to the General Meeting, even though they do not attend the dinner.

*(Continued on next page)*

**FRIDAY, APRIL 18, 1958**

- 9:30 a.m. Some Outstanding Problems of Health in Old Age. Robert T. Monroe, M.D., Harvard Medical School, Boston.
- 10:10 a.m. Surgery for Occlusive Coronary Artery Disease. Robert P. Glover, M.D., University of Pennsylvania School of Medicine, Philadelphia.
- 11:00 a.m. Problems of Peptic Ulcer. Sara M. Jordan, M.D., Lahey Clinic, Boston.
- 11:45 a.m. Clinical Pathological Conference. A. McGehee Harvey, M.D., and Arnold R. Rich, M.D., The Johns Hopkins University School of Medicine, Baltimore.

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**BUSINESS SESSIONS**

The Council of the Medical and Chirurgical Faculty will meet at the Alcazar on Wednesday morning, April 16. This will be followed by the meeting of the House of Delegates also at the Alcazar. The second meeting of the House of Delegates will be held on Friday afternoon, April 18, at the Alcazar. All members are invited to attend the meetings of the House of Delegates, but only the delegates have the privilege of the floor.

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**AUXILIARY LUNCHEON**

The Woman's Auxiliary to the Medical and Chirurgical Faculty will hold its annual luncheon at the Sheraton Belvedere Hotel on Wednesday, April 16. All members of the Medical and Chirurgical Faculty, their wives and guests are invited to attend this luncheon.

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## United States Public Health Service Hospital Baltimore, Maryland

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USPHS HOSPITAL

### HISTORY OF THE UNITED STATES PUBLIC HEALTH SERVICE HOSPITAL SITUATED AT BALTIMORE, MARYLAND

DAVID ZAUGG, M.D.\*

The medical care program for beneficiaries of the Public Health Service traces its origin to the Act signed by President John Adams on July 16, 1798, "For the relief of sick and disabled seamen." In keeping with their tradition of service to men who sail ships, most of the hospitals operated by the Service were called U. S. Marine Hospitals for over 150 years. The name was officially changed to U. S. Public Health Service Hospitals on July 1, 1951.

Marine Hospitals were founded to furnish safe havens where ill seafarers could receive proper

treatment regardless of financial condition, where mariners suffering from contagious diseases would less likely endanger the health of American communities. Medical care for seamen under the enabling Act was first administered during 1799 in a barracks building on Castle Island, Boston. The old Marine Hospital at Norfolk, purchased from the State of Virginia in 1800, was the first hospital building acquired by the Marine Hospital Service. Navy officers and seamen were beneficiaries of the Marine Hospitals from 1799 to 1811. During the War of 1812, Marine Hospitals ministered

\* Medical Officer in Charge.



to sick and wounded naval personnel and gave medical assistance to British prisoners, notably from the frigate *Guerriere*.

Throughout the 1800's as the United States developed its resources and expanded its boundaries, more Marine Hospitals came into being up and down the seacoasts, and on the shores of the Great Lakes and principal rivers. Rapidly growing commerce demanded increased shipping. Boarding houses, private homes, and light-houses often served as Marine Hospitals pending the building of suitable structures. In some places, Marine Hospitals flourished for a short time and then were disposed of by the Government because the number of local beneficiaries dwindled to the extent that it became more practical to care for them through other local facilities. During the War between the States, the military authorities of both the Union and the Confederacy took over the Marine Hospitals. They were returned after the cessation of hostilities.

From the beginning, the Marine Hospitals were under the jurisdiction of the Secretary of the Treasury. According to the Act of 1798, a tax of 20¢ a month was withheld from seamen's wages for the support of the Marine Hospitals. Ships' masters paid the funds so accumulated to the Collector of Customs. The monthly assessment was levied until 1870 with the single exception of the twelve month period beginning April 1, 1837. The proceeds of the tax, however, were sufficient to cover the expenses of the Marine Hospitals in only 34 of the 73 years. Additional monies to maintain the hospitals were obtained from general funds of the Government. The tax increased to 40¢ a month in 1870, plus supplemental appropriations financed the Marine Hospitals until 1844 when a tonnage tax was imposed for this purpose on vessels from foreign ports entering the U. S.

The Act of June 29, 1870 put the Marine Hospital Service on a national basis under a Supervising Surgeon (later to be known as the Surgeon General). The first over-all regulations

were issued in 1872. In the following years came the establishment of the Commissioned Corps of Public Health Service Officers, the setting up of examining boards for medical officers, the appointment of the Surgeon General and medical officers by the President with the consent of the Senate.

Previous to March 21, 1887, patients of the U. S. Marine Hospital Service at Baltimore were treated under the contract system at various civilian hospitals in the City of Baltimore,—for the most part at the University Hospital and St. Joseph's Infirmary. On August 7, 1882, Congress approved an appropriation of \$100,000 for the erection of a Marine Hospital at Baltimore, Md. The site was selected on January 11, 1884 by a Board appointed for that purpose, and the land was purchased at a price of \$20,000. The location chosen was in the northern part of the city, a few blocks west of Charles Street, just south of Wyman Park and adjoining Druid Hill Park. The reservation was quadrilateral in form and comprised about six acres of land; the front was on Remington Avenue and Wyman Park Drive bound by the north. The institution is still on the original site.

The erection of the buildings was commenced in 1886, and the hospital was formally opened on March 21, 1887, at which time forty-two patients were transferred there from St. Joseph's Infirmary.

Dr. F. W. Meade was in charge of the new institution, and he had on duty with him one other physician; also a hospital steward. There were two male nurses and eight other attendants.

The plant proper at this time consisted of a brick executive building, a brick mess-hall and kitchen, three frame ward buildings, and a frame house to serve as quarters for the surgeon in charge. Later, a stable for two horses was erected, thus insuring ambulance service. Two years after the opening of the hospital, a stone wall was built around the front and side of the reservation, which added greatly to its appear-

ance. Four or five years later a laundry of brick construction was added.

When the institution was planned, it was intended for sixty patients, although there was sufficient floor space to have accommodated thirty more.

After its successful opening, the station continued to function, handling a gradually increasing number of seamen and other beneficiaries. Late in 1917 the veterans of World War I were received as patients. This created an immediate and steadily growing demand for bed space, so that in a short time it was necessary to make certain additions. In 1918 a temporary wooden structure was erected for psychopathic cases, and a similar building was put up to be used as a recreation hall and library under the management of the Red Cross. The influx of veterans' cases continued, so that the institution was greatly overcrowded and the problem of securing more adequate quarters became acute. Fortunately, the Army about this time was ready to abandon its hospital at Fort McHenry in southeast Baltimore, and this plant was transferred to the U. S. Public Health Service. On July 1, 1920 the two-hundred-and-ten patients at the original hospital were moved to the new Public Health Service Hospital at Fort McHenry, Baltimore, Md.

When the patients were removed from Baltimore Marine Hospital, the wards and annexes were closed, but the executive building and the surgeon's residence were converted into quarters for medical officers at Fort McHenry. From this time on, the patients of the service,—that is, the veterans of the World War, merchant seamen and other beneficiaries—were cared for at Fort McHenry until the first day of May 1922, when by virtue of executive order the U. S. Public Health Service Hospital (its official name) was taken over by the Veterans' Bureau, and the merchant seamen and other old line patients of the Public Health Service were transferred to Colonial, Mercy, and University Hospitals.



**A WARD VIEW OF THE HOSPITAL  
TODAY**



**A WARD VIEW OF THE ORIGINAL  
MARINE HOSPITAL**

The work of renovating and adding additional wards to the old Marine Hospital at Remington Avenue and Wyman Park Drive was begun in September, 1922 and completed in April, 1923. On May 1, 1923 patients were transferred from the Mercy Hospital and the process of bringing patients from the other hospitals was continued as the wards became available until on June 9, 1923, all the beneficiaries—numbering some 138—were housed in the institution.

The new station showed marked improvement over the old; the bed capacity had been increased to 167. The total permanent personnel of the hospital and outpatient office was 102.

In accordance with the plans of Congress for the construction of permanent Federal buildings, funds to the amount of \$1,640,000 were set aside for the construction of a permanent fire

resistant Marine Hospital on the present site. The legislation permitted the acquisition of adjoining land. Accordingly approximately two acres of the tract belonging to Johns Hopkins, facing on 31st Street and extending from Remington Avenue to Wyman Park Drive, were acquired, thus enlarging the Marine Hospital tract to some eight acres.

Plans for the new hospital were completed and the work initiated in May 1932. The hospital was occupied in May 1934. It is a 400-bed general hospital, of brick construction, Georgian architecture, T shape in form, the main stem being four stories in height, the transverse seven stories and wings six stories in height.

Today, the U. S. Public Health Service Hospital at Baltimore is approved for post graduate medical and dental training. Its medical record section conducts an approved one-year course in medical record library science. A full-time medical physics department handles radium, radio-active isotopes, a radon emanation plant, and a well-equipped machine shop for making special instruments and devices.

At the present time the hospital has approximately 460 employees, which includes a medical and dental staff of 63. The medical and dental officers are commissioned officers of the Reserve or Regular Corps of the U. S. Public Health Service, the grades of which are equivalent to those of the Army and Navy.

During the fiscal year 1956, 4,988 inpatients were treated and outpatient visits totalled 56,000. Throughout the course of the history of the Public Health Service, Congress has increased the number of population groups designated as its beneficiaries for medical care. These patients now include, in addition to merchant seamen, officers and enlisted men of the Coast Guard, Coast & Geodetic Survey, Commissioned officers of the Public Health Service and their dependents, Federal employees injured in line of duty,

*United States Public Health  
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#### LECTURE TO BE GIVEN AT SPRINGFIELD STATE HOSPITAL

The Department of Psychology, Springfield State Hospital announces that the Virginia Beyer Memorial Lecturer for 1958 will be Morris S. Schwartz, Ph.D. The topic will be "The Mental Hospital—Institution in Transition." The lecture, to be given on April 25th, is sponsored by the Women's Auxiliary of the hospital. There will be no registration fee.

For further information write to Dr. Michael H. P. Finn, Chief Psychologist, Springfield State Hospital, Sykesville, Maryland.

## Scientific Papers

### THYROID FUNCTIONAL TEST $\text{RAI}^{131}$ UPTAKE

WILLIAM ROEMMICH, M.D.,\* EUGENE W. VEVERKA, M.D.,† AND  
ROBERT W. SWAIN, *Physicist*‡

The thyroid gland's ability to trap inorganic iodine is related under most clinical conditions to the rate of metabolism. During the first six to eight hours, the rate of uptake bears a direct and during the next 18 the rate of release an inverse relationship to the rate of metabolism. If the rate of uptake is high, the amount of hormone produced by the gland, as measured by the PBI, is increased and the degree of end-organ stimulation, as measured by the BMR, is increased.

Our purpose here is to report an analysis of the  $\text{I}^{131}$  uptake test's ability to separate patients into (1) Hypo, (2) EU and (3) Hyperfunction of the thyroid gland. There are several methods for testing thyroid function which are based on the rate of  $\text{I}^{131}$  uptake by the gland (2, 6). Direct measurement over the gland with a thin window counter is one of the simplest and we have found it very useful. The measuring equipment consists of a Geiger tube, Tracerlab TDC-1 thin end window, sensitive to Beta and Gamma radiation, a Raychronometer including an electronic scaler and an electronic counting rate meter. During the course of our study measurements were made at one, three, six and twenty-four hours after administration in both oral and intravenous methods. The six hour reading proved the most useful. The counter is placed directly over the skin in the midline and over each lobe. This provides up with an average up-

take plus scatter from the neck. Scatter from the neck is corrected by taking a reading over the thigh at a position where the tissue mass is equal to the neck. The direct count over the thyroid is plotted in counts per second per microcurie against the square root of time in minutes.

The normal slope was determined by selecting carefully 78 euthyroid patients hospitalized for minor illnesses and free of thyroid disease clinically and by past history. Care was taken also to avoid illnesses that produce hyper-metabolism such as leukemia, diabetes, pheochromocytoma, cardiovascular disease, pregnancy, anemias, psychoneurosis. Care was also taken to exclude the possibility of having thyroid function disturbed by drugs over the previous six months period. None of these had histories of x-ray procedures in which iodine containing contrast media might have been used. All had BMR within  $-10$  or  $+10\%$  of normal. This slope range, between 0.2 and 1.5, was used as the euthyroid range. Everything higher or lower was to be considered hyper and hypo function respectively. This range corresponded with that found by Samuel Asper at Hopkins who was the consultant for Endocrinology on our staff and who had a great deal of experience with this method of testing thyroid function. After the normal slope was established we studied 22 patients that were clinically with BMR and cholesterol abnormal and this test separated them accurately into 8 hyper and 13 hypo functioning glands (Fig. 1).

We have continued to test hospitalized and out-patients unsuspected of having thyroid

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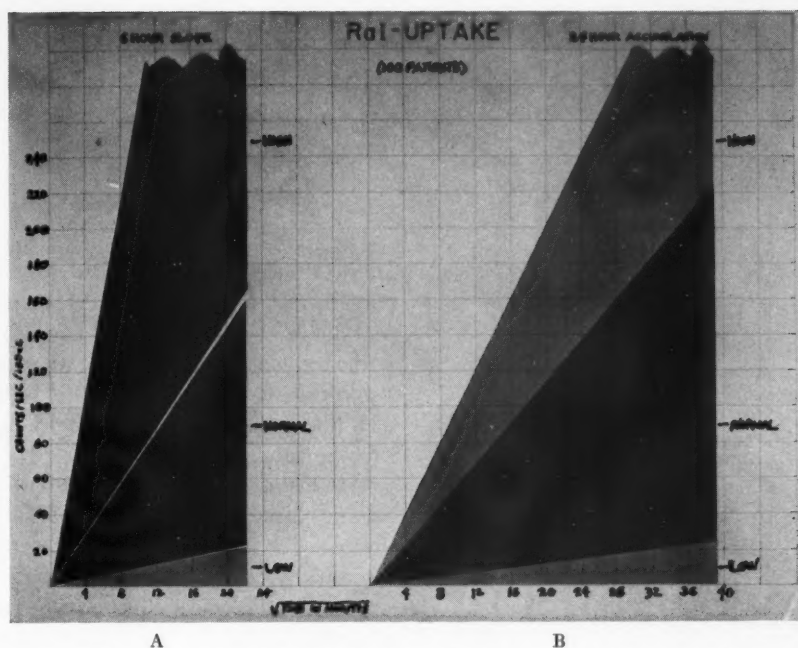


FIG. 1. Separation of hypofunction, eufunction and hyperfunction; A—on basis of 6 hour slope; B—on basis of 24 hour slope.

abnormality in order to gain experience of the test's ability to separate euthyroid from abnormal thyroid function. This method of application accounts for the large number of euthyroids among our total study and does not reflect the incidence of abnormal findings in patients suspected of having thyroid disease. At this time we have completed 539 tests on 509 patients. On the basis of this test alone 456 were euthyroid, 35 hypothyroid with slope 0.18 or less and 18 hyperthyroid with slope 1.5 or greater. Out of the 18 only one was close 1.58 all others being greater than 1.7 (Figs. 2-3). Out of the 456 euthyroid slopes only one was wrong. This was a patient who had classical thyrotoxicosis clinically, a large nodular goiter of 15 years duration, adenocarcinoma of prostate with metastasis, and acute anxiety. The RAI<sup>131</sup> six hour slope was 0.85, the BMR was elevated +30, the PBI was 11.0  $\mu\text{g}/100\text{ ml.}$  and at post mortem the thyroid had many areas of hyperplastic gland. Thus this test picked all

euthyroids with an accuracy of 99.7%. Thus out of 19 actually hyperthyroid patients the test picked 18 or an accuracy of 94.7%. The test is least effective in separating the patients accurately that have hypofunction-

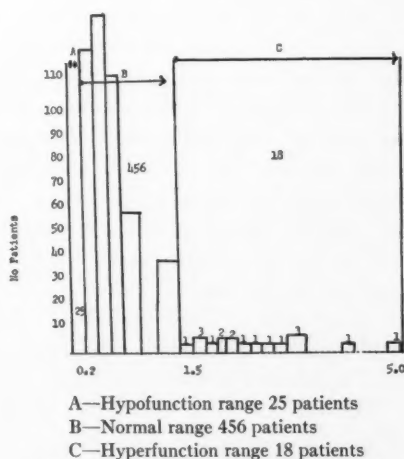


FIG. 2. Actual distribution of all patients.



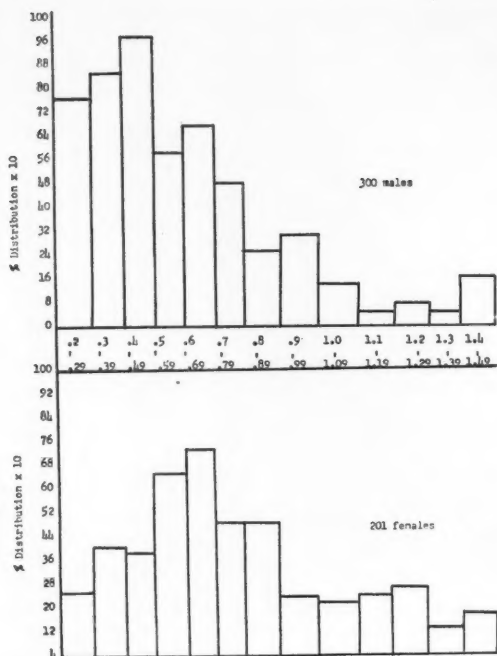


FIG. 3. Distribution by sex over a normal slope. The distribution is statistically significant.

ing thyroids. Out of 35 picked by the test only 25 had hypofunction clinically and by other multiple tests. This is an accuracy of 74.5%. A closer look at those 10 cases incorrectly picked by the test makes it possible to attain greater accuracy in the hypofunctioning patients. Of the 10 cases two had ingested thyroid hormone, a fact not elicited in the original history. After taking them off for three months, slope was normal. One had a gall bladder series within six months—not retested. One had a bronchogram within six months and a slope after 18 months—was normal. Two had experienced acute thyroiditis, one within two weeks and the second was still active. One had a nodular goiter with normal cholesterol, BMR and PBI. One had a superior vena cava syndrome due to calcified paratracheal node. During edema PBI was 6.5; after the edema subsided he had normal slope but PBI was actually elevated to 11.5. One was on PAS for acid-fast.

Realizing these clinical events, which may depress the thyroid function temporarily, all can be excluded by a careful history and thus increase greatly the usefulness of this test for thyroid function.

#### DISCUSSION

The significant features of a diagnostic test are: (1) speed, (2) simplicity, (3) comfort to patient, (4) specificity, (5) economy, (6) repeatability. For a hospital setting the test described above meets all of these requirements. When used to supplement a good history it will pick the patient with abnormally functioning thyroid gland.

The history must be used to rule out low readings due to drugs such as (1) desiccated thyroid, (2) iodine containing contrast media, (3) antithyroid drugs, (4) Cobalt, (5) Para-amino salicylic acid—all of which will produce abnormal slopes. In these situations it will be necessary to wait until the uptake-depressing effects of the drug have been exhausted. This may be in a few days in the case of desiccated thyroid used for a short period, to two years for a bronchogram. One superior vena cava syndrome depressed uptake. We have no good explanation for reduced uptake in this syndrome unless it is secondary to circulatory disturbance.

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## POSTGASTRECTOMY SERUM AMYLASE STUDIES

NORMAN TARR, M.D.\* AND HOWARD D. FISHBURN, M.D.†

### INTRODUCTION

Clinicians learn or are stimulated to learn more from their errors than from their successes as a general rule. Interest at this hospital in postgastrectomy pancreatitis was stimulated by a case of acute fulminating pancreatitis in a patient upon whom a technically easy subtotal gastric resection had been performed because of intractable ulcer pain. The pre-operative condition of this patient had been excellent. There were no abnormal operative findings except the chronic duodenal ulcer, and at post-mortem no specific cause for the acute pancreatitis could be found. Since fatal pancreatitis in the experience of our staff had not been a known complication of gastrectomy the question arose as to how often non-fatal cases occur.

A search of the literature revealed relatively

little on the subject as specifically related to gastric surgery although there are indications that the incidence is increased in both gastric and biliary surgery. Since the serum amylase or lipase levels appear to be the most reliable tests which can be obtained in the usual hospital laboratory for the diagnosis of pancreatitis, the serum amylase test as commonly used was selected. It was felt that if pre- and post-operative studies were obtained on a sufficient number of patients, useful clinical information might be obtained.

Our series of cases is small and statistically not significant. However, as a preliminary report, perhaps a trend can be seen.

On patients undergoing gastric surgery pre-operative serum amylase tests were run. Following operations serum amylase studies were run daily until a normal value was obtained after which the determinations were no longer run. If a normal value was obtained on the first post-

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operative day, the determinations were ended. Some of the cases, in addition, had amylase determinations performed within a couple of hours of completion of surgery. Consecutive, unselected cases undergoing subtotal resection of the stomach for ulcer of the stomach or duodenum make up the series.

#### VALUE OF THE TEST

An abnormally high level of serum amylase is in light of present knowledge a fairly specific indication of pancreatitis. Lewis in writing in "Archives of Surgery" says that several hundred routine serum amylase determinations have given convincing evidence that the normal level of serum amylase remains within constant limits in practically all types of disease except acute pancreatitis in which there is a sudden and significant marked rise. It has been his experience that thyroid, hepatic disease and diabetes may slightly lower the level of serum amylase and that decreased function of the kidney may cause failure of normal excretion of the amylase resulting in slight elevation of the value but in no conditions in which the clinical picture of an acute abdomen (other than acute pancreatitis) was present was the level of serum amylase strikingly elevated. A series of simultaneous determinations of urinary amylase frequently showed a higher value fluctuating within a wider range of individual variation but generally paralleled the serum amylase level. Hillman in 1944 reported that blood diastase level values were determined in a series of 89 cases of mumps on admission to the hospital and on discharge. Seventy-three per cent were above normal on admission. Fifteen per cent of this series showed evidence of pancreatitis sometimes during the course of the illness. Those cases which later developed pancreatitis had an especially high percentage of increased diastase values on admission. Lewison in 1941 reported the following: "Serum amylase rises have been noted directly to follow laparotomy and may be presumed that

the intra-abdominal handling of the pancreas or perhaps the effect from the anesthesia was responsible." We have no evidence in support of these contentions. In a small series of amylase determinations performed shortly after biliary tract operations, there was no constant irregularity observed. A striking expression of normal amylase levels in 94 per cent of 720 patients is a rather convincing manifestation of its stability in diseases other than pancreatitis.

The important studies of Millbourn in 1936, Foged in 1933 and 1934, Branch and Zollinger in 1938 and others have pointed out that essentially the rise in serum amylase in gallbladder disease depends upon the location of the stone and the anatomical inter-relation of bile of pancreatic ducts. It has been their experience that such amylase elevations are only of a moderate amplitude and are seldom to be confused with the increased amylase activity noted during the onset of the acute pancreatic necrosis. "Gallbladder disease without common duct stones rarely gives abnormal amylase values."

Ninety-four per cent of 720 patients had clinical conditions other than mumps or diseases of the biliary system, were found to have normal serum amylase values. Patients with mumps were observed to have elevated amylase levels. Patients with liver diseases regardless of kind have often depressed amylase activity. Deviation from normal amylase occurs infrequently in diseases other than pancreatitis.

Therefore, an elevated serum amylase is usually indicative of acute pancreatitis but can occasionally be caused by mumps, stones or blockage of the common and pancreatic ducts, or the presence of renal insufficiency.

Two hundred and eleven units is currently considered the upper limit of normal for serum amylase as the test is performed at this hospital. Six of thirty-one cases undergoing gastric surgery had elevated serum amylases postoperatively. One case ran a level of 843 units on the first postoperative day, another had 562 units and another had 585 units. By the fourth post-

operative day all elevated levels were down to normal.

Two of these three cases had only moderate duodenal scarring and were considered easy from the standpoint of duodenal dissection and closure of the duodenal stump. The other case had marked duodenal scarring making stump closure difficult. This case also had a benign gastric ulcer present.

In no case did we alter our usual treatment of these cases. No specific treatment was instituted because of amylase elevation. In none of the patients did unusual postoperative difficulty occur nor were there clinical findings indicative of acute pancreatitis.

One can indulge in much conjecture as to the etiology of post-gastrectomy pancreatitis. We will not pursue this further except to say that Millbourn has listed as possible causes:

1. Vascular injuries to pancreatic vessels.
2. Stagnation of duodenal contents following gastrectomy.
3. Spasm of sphincter muscle around the orifices of the pancreatic ducts.
4. Injuries to the pancreatic ducts.

Millbourn emphasized that elevation of the urinary diastase was four times as common after gastric resection for duodenal ulcer as for gastric ulcer or carcinoma.

#### SUMMARY

In light of our present knowledge it appears that:

1. Serum amylase elevations beyond normal limits are not unusual postoperatively following gastric surgery.
2. Abnormal serum amylase elevations postoperatively are not necessarily coordinated with an unusual clinical postoperative course.
3. Difficulty of freeing of the duodenal stump is not necessarily associated with abnormal amylase levels.
4. In this series, highest amylase levels were seen within the first twenty-four hours after

surgery with return to normal level within four days.

5. This is a subject which is in need of greater study.

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## BLOOD VOLUME STUDIES IN HUMANS USING RADIOIODINATED HUMAN SERUM ALBUMIN

HOMER TWIGG, M.D., LEO NAKAYAMA, M.D., AND PAUL GOODWIN, M.A.

With the introduction of radioactive substances in clinical and investigative medicine, we are in the midst of a new era utilizing these agents to supplement our knowledge of physiology and pathology in the human. The radioactive isotopes have been utilized in various ways to elucidate more clearly and more accurately various states of the body, from the total blood volume studies to the specific role of a molecule in an enzyme system. When reviewing the historical interest of determining blood volume, one soon realizes that there has been an attempt to measure total blood volume and to correlate it with some easily measurable body data, such as body surface, body weight, height, etc., and to subdivide further, correlations such as sex, race, build, age, etc. It is interesting to note that the first attempt at total blood volume determination was to actually bleed all of the blood of a criminal who was just executed by hanging the body upside down. Since this crude and unesthetic beginning, various dyes have been introduced into the blood and blood volume determinations made, using the dilution principle. Still using the dilution principle, the only significant change in the method of blood volume determination has been the sub-

stitution of radioactive isotopes for the dye, which was the method used in this study. Our aim was to satisfy ourselves with a feasible method of determining blood volume, to establish our normals, and to compare them with those found by others who have run large series, using the same technique. We wish to present the method we established at our hospital along with the data obtained in our determination of normals and also to present some interesting case studies to illustrate the effect on blood volume in certain pathological states.

As reported by Storaasli, *et al.* (1), the ideals of a test substance in blood volume determinations are that, (1) the substance must remain in the blood for a long period of time. (2) It must mix easily and readily with blood. (3) It must be easily identified and measured. (4) It must be non-toxic.

A substance which satisfies all these requirements is human serum albumin tagged with radioactive iodine. This is sold by Abbott under the name of RISA. At the end of ten minutes, 100% of the injected RISA remains in the blood and after eight hours, 70% remains. It diffuses rapidly in the plasma and none is attached to



the red cells. The  $I^{131}$  in the RISA emits gamma rays which can be counted in the well-type scintillation counter. We have not had any toxic reactions in our 225 determinations.

#### METHOD

Our determinations were performed on patients and volunteers and, after review of their adjunctive clinical findings, such as hemoglobin, complete blood count, urinalysis, sedimentation rate, etc., the subjects were divided into normals or pathologicals. No determinations were performed on children. As described by Fields in his method of blood volume determinations using RISA, a solution of saline and RISA was prepared so that each 5 cc. of solution would contain about 5 micro-curies. This was then introduced into an antecubital vein, care being taken to withdraw blood back into the barrel several times to insure adequate mixing and use of all the substance. After ten minutes, about 5 cc. of blood was withdrawn from the opposite arm into a heparinized syringe and 3 cc. were placed into a plastic test tube, and 1 cc. into a Wintrobe tube for the hematocrit determination. After all the injections were made, 5 ml. of the solution was placed into a volumetric flask and diluted up to 2000 ml. A 3 cc. sample of this standard solution was then placed into a similar plastic test tube. The samples were then counted in a well-type scintillation counter (figure 1) for five minutes and the blood volume and plasma volumes were calculated as follows:

$$\text{Blood volume} = \frac{\text{Net counts (St'd)}}{\text{Net counts (blood)}} \times 2,000$$

$$\text{Plasma volume} = \text{Blood volume} (1.00 - \text{Hematocrit})$$

When making the determinations, the patient's age, race, sex and the clinical diagnosis was obtained. In addition, the patient was weighed and the height measured at the time of the determination.

The accuracy of our determinations is believed

#### WELL-TYPE SCINTILLATION COUNTER

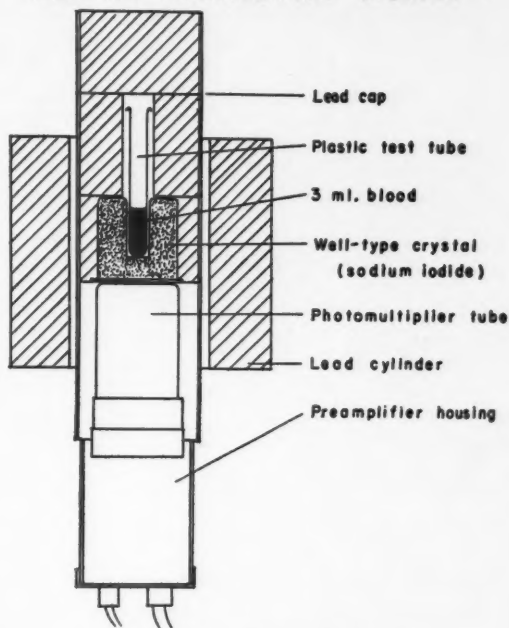


FIG. 1. Well-type scintillation counter

to be within 5%. Repeat determinations on normal patients showed a variation of less than 3%.

#### RESULTS

In the article by Lindon Seed et al. (3), a useful concept of interpreting blood volumes was presented. Three states of blood volume may occur, that of hypervolemia, normovolemia, and hypovolemia. In turn, each of these may be subdivided into those having a high hematocrit, a normal hematocrit and those having a low hematocrit (figure 2). We were primarily interested in the normovolemic state with a normal hematocrit.

A total of 133 individuals, 103 men and 30 women, were selected as "normals," and their blood volume per kg. of bodyweight computed. The men had an average of 75 cc./kg., the women 71 cc./kg.; thus a sample of equal numbers of men and women would have 73 cc./kg. This figure is identical with the average found by



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**TABLETS:** Each tablet contains 0.5 Gm. ( $7\frac{1}{2}$  grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

**SYRUP:** Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

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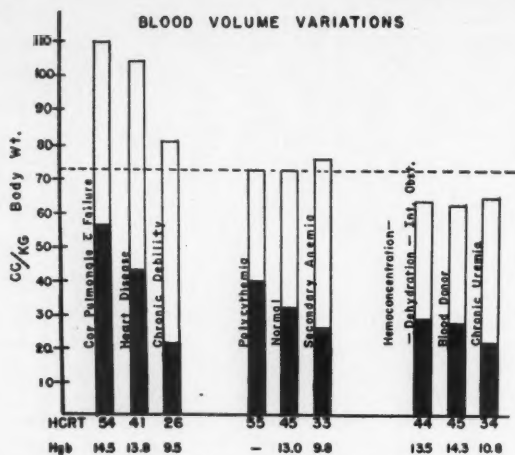


FIG. 2. Blood volume variations

Seed. There was a wide range of normal values; however, certain generalizations can be made. Women have less blood/kg. than men; a plot of cc./kg. as a function of weight shows that in general heavier patients have less blood per kg.; this is shown in figure 3 where the shaded areas cover the 50% range of normal values as found in our series. Based on our series, normal blood volumes predicted on the basis of 75 cc./kg. (for men) would have a probable error of  $\pm 9\%$ . More accurate predictions of normal blood volumes could be made by realizing that the average values vary from about 90 cc./kg. for a 50 kg. man to 60 cc./kg. for a 100 kg. man. This gives roughly 5000 cc. for a 125 lb. man, and 6000 cc. for a 200 lb. man; for women the averages are 3600 cc. at 100 lbs. and 4400 cc. at 150 lbs. Blood volumes predicted on the basis

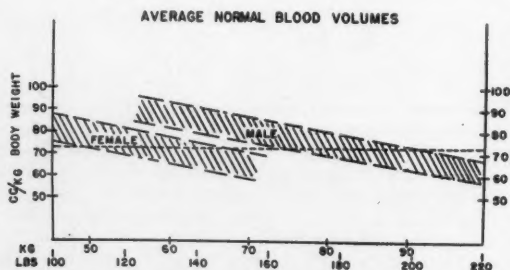


FIG. 3. Average normal blood volume

of these figures would have a probable error of  $\pm 5\%$ , although a few normals would still differ as much as 15%.

Attempts were made to plot normal volumes as a function of both weight and height; however, such plots showed as wide a variation as values based on weight alone.

A few more generalizations can be made: patients who had recently lost 10 lbs. or more, had more blood per kg. than the average; patients who had recently gained weight, had on the average, slightly less blood per kg. This indicates the importance of using the average body weight instead of the actual weight when calculating the expected normal for a given patient. A series of 41 cancer patients had an average of 82 cc./kg.; this high figure was probably a reflection of their weight loss.

There are two case studies with serial determinations. The first (figure 4), is that of a 21 year old white male who had extensive and severe ulcerative colitis in whom a right hemicolectomy and an ileostomy was performed as indicated on 2/23. The first post-operative study shows the decrease in total blood volume with the hematocrit rising, a result of blood loss and dehydration. Fluids and blood were administered and on the fourth post-operative day there was a marked expansion of total volume although the hematocrit level remains fairly normal. Various blood volumes are then reflected in periods of acidosis and alkalosis, the exact interpretation of which we are not sure. On the 56th post-operative day his blood volume has returned to a fairly normal level. In this case, one can see the relative overloading with fluids on the fourth post-operative day and being somewhat behind on the 28th post-operative day.

The second case (figure 5) is that of a 43 year old man with emphysema and cor pulmonale in right sided failure. Here there is a hypervolemic state with secondary polycythemia. The patient was treated with Diamox, ammonium chlorides and placed on a low salt diet and diuretics. A

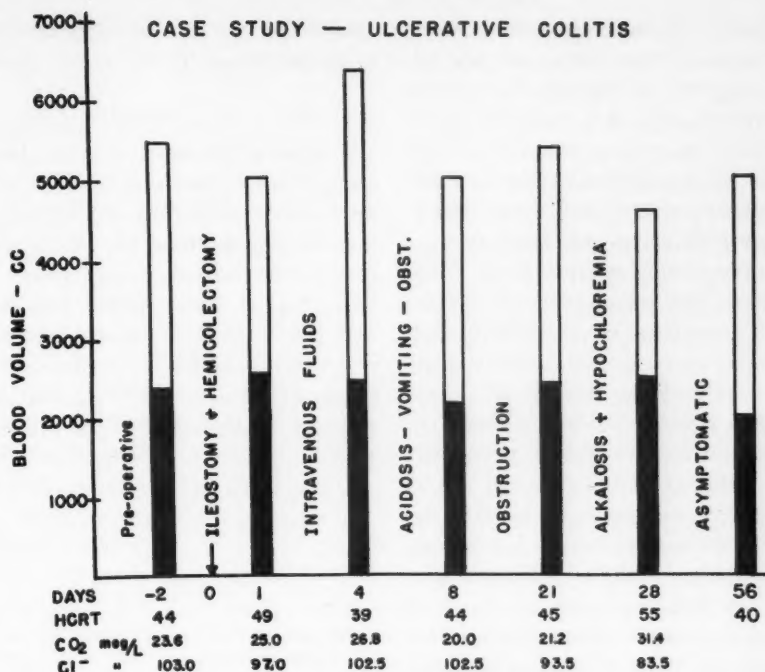


FIG. 4. Case study—ulcerative colitis

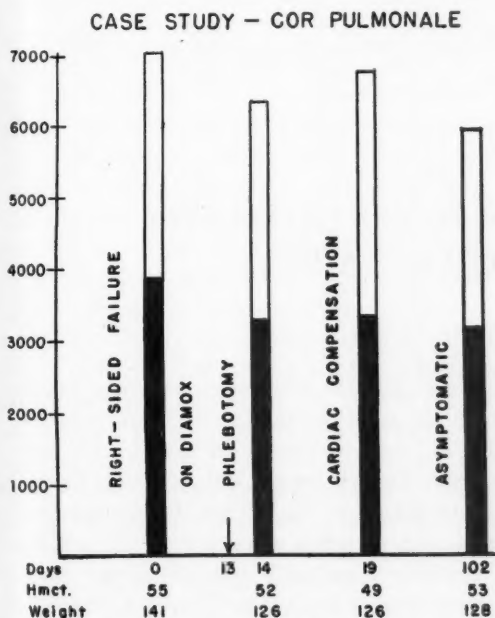


FIG. 5. Case study—cor pulmonale

phlebotomy was performed on 1/25 and there is some reduction in both the plasma volume and the total volume. On the 19th day of hospitalization the patient showed cardiac compensation and on the 102nd day after initial study, he was relatively asymptomatic. Here there is a further reduction in blood volume but a high red cell mass persists.

#### CONCLUSIONS

In order to establish "normals" for a given laboratory method, one must compile a large series using this method and correct for inherent errors in the method itself. We feel that although our series is relatively small, the fact that our results closely parallel those of others makes our assumptions as to normals valid. This technique of studying blood volumes is a valuable tool for purposes of clinical investigation and clinical management of patients, particularly those patients who show response to ther-

apy by a reflection of the blood volume levels returning to normal. This method has the advantages of being relatively simple to perform, there is no evidence that it is toxic, it can be repeated at fairly short intervals, even in the same day, and the determination can be made within a very short period of time, about twenty minutes. However, there are some disadvantages, these disadvantages being common to all radioactive substances. The personnel must be fully aware of the properties of radioactive substances, and must exercise special care in their use. This method requires the use of a well-type scintillation counter which is a relatively expensive item and not available in many hospitals. If this method is used as a routine clinical laboratory test, sufficient personnel must be experienced or trained so that the test is available at all times, since many of the surgical conditions necessitating determinations are emergent in nature. During the course of our study, there were some occasions when a blood volume determination might have been of value in the treatment of patients; however, due to the small number of personnel experienced in this technique, we limited our study primarily to elective, normal and pathological states that were

available at the time blood volume studies were being performed by one of the authors.

#### SUMMARY

A method of blood volume determinations using RISA is presented. A total of 225 determinations were performed. The results of our normals match those found by other investigators. Our over-all average blood volume was 73 cc./kg. of body weight. This was identical with that found by Seed, et al. Some blood volume determinations in specific case studies are presented. Some of the disadvantages and advantages of this method are discussed.

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## INTRAVENOUS CHOLECYSTOGRAPHY AND CHOLANGIOGRAPHY

HOMER L. TWIGG, M.D.

Cholecystography and cholangiography have long held a respected place as diagnostic procedures in the study of the gallbladder and its associated diseases. The accuracy for correct diagnosis using the more recent oral preparations has been established between 90 and 97 per cent. Admittedly this is very good; however, these procedures are not without their limitations and disadvantages. Using the oral preparations

the visualization of the biliary system depends upon the ability of the gallbladder to function: that is, to concentrate the media sufficiently for visualization on x-ray to occur. If there is severe disease of the gallbladder mucosa, adequate concentration of the media will not take place. It is in just such gallbladders that visualization is most important. Of course this is not the only reason for non-visualization of the gall-

bladder on a routine series. There are many others, but this is one of the more important ones.

Another limitation of the usual routine oral preparations used in cholecystography is the consistently poor and unreliable visualization of the biliary ducts. If the ducts are visualized at all, it is on the film taken following the fatty-meal. The gallbladder contracts following a fatty-meal, forcing the media through the biliary ducts into the duodenum. If you are fortunate enough to take your film at the time the gallbladder contracts, good visualization of the ducts is obtained. This occurs in about 1 out of every 10 examinations. Partial visualization is more frequent. Recently a study was done using Telepaque, one of the newer oral preparations, and with serial films taken at 8, 12, 15, 20 and 30 minutes following the fatty-meal, good visualization was obtained in 82 per cent of the cases (1). The taking of so many films is time-consuming and expensive.

The need for a preparation that would be excreted by the liver in sufficient concentration to visualize the biliary ducts has long been recognized. Not only would this eliminate the limitations of the oral preparations mentioned above, but it would allow visualization of the ducts in post-cholecystomized patients. Just such a compound was synthesized by the Schering Corporation of Germany in 1953 under the name of Biligrafin. The exact compound is now being produced in the United States by Squibb under the name of Cholografin.

Cholografin is an aqueous radiopaque solution of the di-sodium salt of the compound N,N-adipyl-bis-(3-amino-2,4,6 triiodo)-benzoic acid. You'll notice that it is a triiodo compound having three atoms of iodine to the molecule. The iodine content is 64, 32% and the atoms are firmly bound to the molecule and remain attached after the substance is injected into the blood of man or animal (2).

After the intravenous injection, Cholografin is rapidly excreted by the liver. Within 10 min-

utes following the injection, it appears in the bile in sufficient concentration to reveal a shadow by x-ray. Ninety per cent (90%) of the medium is excreted by the liver and eliminated by the feces. It is not re-absorbed from the intestine. The other 10 per cent is excreted by the kidneys (2). In patients with liver damage the kidney excretion increases and often the renal collecting systems are visualized. It has been postulated that perhaps Cholografin may serve as a liver function test by determining the degree of visualization or concentration of kidney excretion: (Gaebel and Teschendorf). This is a fallacy as shown by Georg Theander, a Swedish investigator (3). The visibility of the contrast medium in the kidney and bile ducts is going to be influenced by any variations in diuresis and cholestasis. Hence, you could have a definitely pathologic amount of the Cholografin injected excreted by the kidney, but in such low concentration as not to be visualized roentgenographically, or you could have the normal 10 per cent amount in such high concentration that it would be visualized. Indeed, in one of his cases where the hepatic ducts were atretic and all of the medium *had* to be eliminated by the kidneys, *no* visualization of the renal system was found. On the other hand, cases with normal liver functions studies showed renal excretion that was visible.

#### REVIEW OF LITERATURE

The first report on the use of Cholografin was made by Fromhold in Germany in May 1953 at a convention. This report subsequently appeared in the German literature in September 1953. It concerned 250 cases. Universally good results were obtained (4). Occasional mild nausea and rare vomiting occurred. Hornkiewytch in the same journal reported on 274 cases (5). Six per cent (6%) of his cases had slight reactions such as restlessness, heat, pressure in abdomen, dizziness and a 1 per cent had severe reactions with fever, chills and collapse which responded without therapy. Numer-



ous subsequent reports appeared in the foreign literature and all producing about the same results—excellent visualization of the ducts with few side reactions (6, 7, 8, 9).

The first American report was in the American Journal of Medical Sciences in April 1954 by Berk, Karnofsky, Shay and Stauffer (10). They did 33 studies on 30 patients; 9 with gallbladders and 21 were post-cholecystectomy patients. Seven of the 9 with gallbladders intact visualized. One of those that did not was jaundiced and the other had a block of the cystic duct. Six of the 9 showed the common duct. Nineteen of the 21 without gallbladders showed the common duct. No abnormalities were seen except dilatation, i.e. above 8 mm. In some cases the hepatic ducts were visualized. The quality and degree of visualization was at least equal to that of the newer oral preparations. There was no layering of the media. Eight showed dye in the duodenum. The terminal end of the common duct was poorly seen. Urograms were pronounced in 2 cases whose ducts were not seen. Partial urograms presented in 12 cases. Only mild reactions were infrequently met. Other reports in the American literature have recently appeared. In a small series of 30 post-cholecystectomy cases reported by Orloff, Sklaroff, Cohen and Gershon-Cohen, 26 showed visualization of the common duct and hepatic ducts. Lowered hepatic function was associated with the 4 cases of non-visualization. Common duct calculi were seen in 3 of the 30. A dilated cystic duct stump was seen in one case (11). Side effects in 6 of 60 other cases were dizziness, trembling or restlessness (12).

In all series reported to date the visualization of the ducts is between 85–91 per cent. In many of those which do not visualize there is impaired liver function.

#### TECHNIQUE

The preparation of the patient is the same as for a routine gallbladder series. Fluids are stopped 8–10 hours before examination to enhance dehydration. Every patient is tested for

sensitivity either by skin test or by injecting 1 cc. intravenously and waiting 10 minutes. At our hospital we now use the intravenous test dose since the skin test universally gave a positive result. The usual dose given is 40 cc. over an 8–10 minute period. Side effects are noted to be more frequent if injected fast. Serial films of the gallbladder are taken every ten minutes following the injection in left anterior oblique position. The first one is viewed wet so that necessary changes in position or technique can be made. Following the 20-minute film, laminograms have been taken on several patients in the mid-coronal plane and 1 cm. on either side of it. This enhances the visualization of the ducts and blots out overlying gas shadows in the bowel that could be confused with non-opaque stones in the duct (13). Maximum visualization has been obtained usually on the 20-minute film.



FIG. 1. A film taken 10 minutes after the intravenous injection demonstrates minimal dilatation of the common duct. The main hepatic duct and the right and left hepatic ducts are well visualized. Note the cystic duct and its apparent entrance to the common duct on the left side. This was a post-cholecystectomy patient.



If subsequent films show a decreased density, then the examination of the ducts is terminated. Initially films of the gallbladder were taken at 1, 2, and 3 hours. It has since been found that the maximum visualization is had at 2 hours and the other films have been discontinued. Routine gallbladder films are taken at 2 hours in the PA and oblique positions. If the films warrant it, fluoroscopy of the gallbladder is then done and spot films taken. Then if the gallbladder is present and no stones are seen to block the duct, a fatty-meal is given and a repeat oblique film is taken after 30 minutes. A 20 per cent contraction or more of the gallbladder is considered normal.

### RESULTS

Twenty cases have been examined at our hospital; four were on post-cholecystectomy patients, nine were on patients with non-visible



FIG. 2. A post-cholecystectomy patient with impaired liver function showing good visualization of the biliary ducts which appear normal. Note the contrast media entering the duodenum.



FIG. 3. A 2 hour film shows visualization of the gallbladder and biliary ducts. The gallbladder did not visualize on routine oral cholecystography. At surgery a large amebic abscess was found in the liver adjacent to the superior surface of the gallbladder. The gallbladder was normal.

gallbladders on routine cholecystograms, two were done to rule out stones in the common duct on patients who showed cholelithiasis on routine examination, two were on patients with right upper quadrant calcifications that were questionably in the biliary tree, two had abnormal gallbladder configurations on routine examinations and one patient was mis-diagnosed as a non-functioning gallbladder on the routine examination.

Three of the four post-cholecystectomy cases showed good visualization of the ducts. One of these showed minimal dilatation, 8 to 9 mm., along with a cystic duct stump (Fig. 1). The other two were normal (Fig. 2). The hepatic ducts were also seen. The fourth case showed only faint visualization of the ducts.

Six of the nine gallbladders, which did not visualize on routine oral cholecystography,



FIG. 4. This film was taken 10 minutes after the intravenous injection of Cholografin and shows the large branched calculus to lie within the common duct. The gallbladder appears normal. This patient was relatively asymptomatic and surgery was refused.



FIG. 5. This 30 minute film shows the normal appearance of the gallbladder and biliary ducts. On the oral examination the ducts were not visualized and the relationship between the right upper quadrant calcification and the biliary ducts could not be ascertained. Because of persistent right upper quadrant pain the intravenous study was done and showed the calcification to lie outside the biliary system.

showed good visualization of the gallbladders and ducts using the Cholografin media (Fig. 3). Three of these cases showed stones in the gallbladder. Two showed no visualization either in the ducts or in the gallbladder. Urograms were obtained in each of these cases and both patients had abnormal liver function tests and were jaundiced. One patient showed a block of the cystic duct.

Of the two cases with abnormal gallbladder configuration, both were better visualized with the use of Cholografin than on the routine examination. Normal ducts were seen in both cases. In one case we were able to rule out an extrinsic lesion that was suspected on the routine examination.

The gallbladder and ducts of the two patients showing right upper quadrant calcifications were well visualized. One examination clearly

demonstrated the location of these calcifications within the biliary ductal system (Fig. 4). The calcification in the other patient was seen to lie outside of the biliary tract (Fig. 5).

**Ducts:** Seventeen of the total twenty (85 per cent) patients showed partial visualization of the common duct. In 9 of these cases the visualization was considered excellent, good in 4 cases, and faint in the remaining 4 cases. A portion of the hepatic duct was seen in most cases and in one of these the right and left hepatic duct were identified. The terminal end of the common duct visualized in only one case. Four cases in which laboratory tests revealed impaired liver function showed the ducts well. Two cases with normal liver function tests revealed only faint visualization of the ducts.

The contrast media was seen to enter the duodenum in seven cases.

**Laminograms:** Fifteen patients had laminograms taken. Eleven successfully showed the ducts while four cases were technically unsatisfactory.

**Urograms:** Three patients showed urograms, one only partially. Each of these patients had abnormal liver function tests.

**Reactions:** Thirteen patients had no reactions at all. Two complained of dizziness. Two had slight nausea; both of these were post-cholecystectomy cases. Two patients had pain in the arm at the site of injection where some of the media infiltrated the subcutaneous tissues. One patient complained of two sharp colicky pains in the right upper quadrant. At surgery, this patient was found to have a small thick-walled gallbladder without stones. No severe reactions occurred.

#### DISCUSSION

The results of this study and others indicate that Cholografin is a valuable agent to be added to the list of contrast media now employed in the diagnostic study of the biliary system. Certain advantages have become apparent.

In a significant number of patients whose gallbladders do not visualize following the use of oral preparations, visualization will occur with Cholografin. As the media is excreted by the liver in high concentration, visualization does not depend upon the ability of the gallbladder to concentrate the media. Therefore non-functioning gallbladders will be visualized.

With the use of the present medium the biliary ductal system can now be evaluated. In patients with cholelithiasis this is valuable in ruling out stones in the biliary ducts. Hence, a means is now available for non-surgical cholangiography. This is most valuable in evaluation of patients with the post-cholecystectomy syndrome. It saves operative inconvenience, expense and risk.

In patients who for one reason or another

cannot take the contrast media by the oral route, as in infants or patients with persistent vomiting, Cholografin solves the problem of studying the biliary system in these patients. It is well tolerated and affords a rapid diagnosis. The administration is simple and reliable and excellent radiographic contrast is obtained. The time of the examination is short when compared with that required by the oral medium. Cholografin can be used on patients whose gallbladders have failed to visualize with the oral media and it may be employed on the same day as the previous examination.

The disadvantages of Cholografin are few. Obviously it cannot be used on patients who are sensitive to iodine. It should not be used in patients with hyperthyroidism or those with severe renal damage. It is of no value in jaundiced patients or those with severe liver damage. Unfortunately the terminal end of the common duct is not seen and this is a crucial area where calculi and other disorders lodge.

#### CONCLUSIONS AND RECOMMENDATIONS

Cholografin is a valuable adjunct to the media now used for the roentgenologic examination of the biliary system. It is not recommended at this time that it replace the usual oral preparations in use today but that it be reserved for those patients whose gallbladders fail to visualize on routine examination, in cases with intact gallbladders in which ductal pathology is suspected, and in post-cholecystectomy cases for evaluation of the ducts. Laminograms are useful in blotting out shadows which are superimposed on the biliary ducts. The reactions are minimal.

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*This concludes the USPHS Hospital Issue of the MARYLAND STATE MEDICAL JOURNAL*

#### INSTITUTE ON MENTAL ILLNESS

The staff of the Spring Grove State Hospital is planning a program on Mental Illness. This is to be given at the Spring Grove State Hospital on Monday, May 5, 1958 from 1 p.m. to 4:15 p.m. It is designed particularly for the general practitioner.

The program is as follows:

1:00	Dr. Isadore Tuerk	Greetings Alcoholism
1:30	Dr. George Longley	Commitment to a Mental Hospital Admission Procedures Hospital Statistics Discharge Rates Fees Follow-up after Discharge
2:00	Dr. Edmee Reeves	Schizophrenia
2:30		15 minute recess, coffee and refreshments
2:45	Dr. A. A. Kurland	Research
3:15	Dr. Augusto Esquibel	Affective Disorders and Involuntional Psychoses
3:45	Dr. Bruno Radauskas	Organic Psychoses and Senility

Dr. Tuerk states that each speaker is a member of the staff of Spring Grove State Hospital. The topics of mental illness will be discussed from the point of view of diagnosis, treatment, and treatment facilities available in a State mental hospital, and prognosis.

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## EDITORIAL

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### SPUTNIKS AND ICBM'S

AMOS R. KOONTZ, M.D.

Americans have always felt secure from foreign invasion. The oceans lying on each side of us have been our staunchest allies. Maybe we would still be secure had we followed Washington's admonition to avoid entangling alliances. However, we did not follow it, and it is obvious that we are now in hot water up to our ears.

We have allowed the Communists—the worst political influence the world has ever seen—to outstrip us in the technology of warfare. Lenin, in 1903, declared that the Communists would gain world domination by fair means or foul—lying, treaty breaking, stealing, arson, murder—any means justifying the end. The Communists have not deviated one iota from that principle from Lenin's time to the present. They have declared that they will destroy us sooner or later. They are daily working for that goal.

Those who think that it cannot happen here had better be alerted. Unless our nation becomes alerted, is willing to give up its soft and easy life, and go to work, the Communists will be prepared sooner or later to destroy us. Then intercontinental missiles will wipe out records which we have long cherished. Then the World Medical Association's depository for medical credentials (unless that depository itself is destroyed) will come in handy for many doctors who will need relocation and will have no way of proving not only what their qualifications are but even that they are doctors at all.

Many young American doctors are aware of the possibility that some day they may be in the same situation as the refugee Hungarian doctors, who recently had to leave home leaving all their records behind, many of them destroyed.

General Lee said, "The best defense is a vigorous offense." The W.M.A. is waging a vigorous offensive against all the forces of evil throughout the world which are trying to alter our way of life and which are especially trying to destroy the private practice of medicine. No doctor can escape his responsibility in aiding in this fight, by joining the W.M.A.

In the meantime, while our vigorous offensive is being pushed, we should not neglect our defenses. General Lee, one of the most outstanding advocates of the offense, also was the first to use earth works as a defense mechanism. We should also aid in the defensive by helping the W.M.A. establish its central depository for medical credentials. The way to help is to *join* the W.M.A.

1014 St. Paul Street  
Baltimore 2, Maryland



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## ARTICLE OF INTEREST

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### SHARING BENEFITS MEANS SHARING PROBLEMS\*

DEAN A. CLARK, M.D.†

A little over a year ago the board of trustees of the Massachusetts General Hospital made an unprecedented decision: for the first time in the hospital's 135-year history the board decided to borrow funds for a capital purpose. The purpose was the construction of the Warren Building (now completed) for laboratories and offices and, eventually, beds.

This decision well illustrates the situation of American hospitals today. Despite the development of prepayment care plans which enable most patients to pay for their hospital care, and a very active general economy, few hospitals have funds available for improvement and modernization of their plants. Moreover, the majority of the nation's teaching hospitals and medical schools are running deficits.

Most hospitals have managed to keep solvent by raising rates and depending upon Blue Cross and other insurance to increase their premiums to meet the continually rising costs of service. But what has not been openly faced is that hospitals, just as any other enterprise, have a need for capital funds. Hospitals' capital needs, moreover, are by no means limited to the replacement of worn-out buildings and equipment, although this is important, but also include constant modernization, because of advances in medical science; and constant enlargement, because of the increasing use of hospitals by the public.

It is true that capital needs have in part been met through the very far-sighted and well-administered Federal Hill-Burton Act. But even under

Hill-Burton it is necessary for hospitals to raise matching funds and this is not always easy.

The problem of meeting capital needs has arisen largely from the tradition in this country that the construction, equipment, and endowment of hospitals be paid by philanthropy through gifts, bequests and special drives for funds. The trouble now is that these sources are markedly reduced in proportion to the need. Because of the world political and economic situation, funds from these sources are unlikely to be increased in the foreseeable future.

What is needed, it seems, is public recognition of the fact that hospitals should have recourse to some systematic method of regularly accumulating capital the same as any successful business. It is difficult for hospitals to have to go to individuals, corporations, foundations, or the community every time they need a new building or an electron-microscope. Moreover, some buildings, although essential, have very little appeal—for example, a laundry, maintenance shop or parking facilities. What other major industry (hospitals now constitute one of the largest industries in the country) would plan to depend upon such uncertain sources for its major capital needs?

The second major problem which hospitals face today is the high cost of the specialized education provided by voluntary teaching hospitals. In reality, these education costs cannot be classified under cost of hospital care at all. This problem, too, has arisen in part from tradition—the tradition that interns, residents and student nurses, among others, pay for their education by the service they give to patients. This may once have been true in the days when hospital care and education in these fields were simpler than they are now. Today, however, one cannot escape the conclusion that at least some part of a teaching hospital's budget, excluding research, is for teaching, either

\* For The Hospital and Community.

† Reprinted with permission from TRUSTEE, the Journal for Hospital Governing Boards, published by the American Hospital Association. 10: 1-3, October 1957.

‡ Dean A. Clark, M.D. is general director of The Massachusetts General Hospital, Boston. This article is condensed from the 1956 Annual Report of the Massachusetts General Hospital, Boston.



directly or indirectly. Hospitals with adequate endowment can absorb this expense, but with the increasing cost of hospital care some, if not all, of this expense, will ultimately fall on the sick person in the hospital bed unless philanthropy or some other source provides for it.

That the voluntary hospital, much less the patient, should pay for the education of the country's future doctors, nurses, social workers, dietitians and the rest, seems all the more unfair in that these educational activities, which are designed to benefit the whole country, are confined to about one-sixth of the country's almost 7000 hospitals, namely, the 1000-odd institutions which might be included in the group of "teaching hospitals."

We might consider this group to be comprised, first, of those institutions (about 1000 in number) which have hospital schools of nursing; secondly, of the hospitals (mostly the same as those in the first group plus a few others) which have approved internships and residencies; and thirdly, of the hospitals, about 100-150 in number (and all also in the first and second groups) which actually teach medical students on their wards. By and large, the education of members of the other health professions such as social workers, dietitians, technicians, and so on, takes place in the same hospitals.

Whatever method is found for meeting these hospital educational costs it clearly should not be based solely upon payments by the hospitalized individual nor upon philanthropy. Properly, the whole community should be called upon. For example, tax-supported welfare department payments for medical care should include amounts for educational costs instead of specifically excluding them, as now often happens. The same principle should apply to many organizations,—such as Blue Cross for instance,—which have a broad community base and which are also large purchasers of medical and hospital care. Other examples would be the Blue Shield, commercial insurance companies, workmen's compensation carriers, the "Medicare" program for dependents of the Armed Forces, and the Red Feather, all of which ought explicitly to help support the expenses of education instead of—

as is often the case—refusing to recognize these costs as a legitimate item for their support. In the same way, education of members of the health professions should be included in the allowance for indirect expense on research grants from federal agencies, voluntary health organizations and foundations. All of these agencies have a huge stake in future availability of doctors, nurses, and so on, to provide service for their clients, subscribers, policyholders, or for research. It seems reasonable, therefore, that they should help finance the educational programs of these professions.

Another obvious possibility, although not a popular one, is direct tax contribution. As regards the federal government, such a contribution might, nevertheless, be justifiable on two counts: first, because the nation's whole population requires medical care, but the education of those who can provide it must necessarily be concentrated in relatively few institutions and therefore the whole nation might reasonably be asked to assist these institutions; and secondly, because although the various federal agencies, such as the Armed Forces, Public Health Service, and Veterans Administration, use thousands of physicians, nurses, and others, they provide basic training for not a single one.

Somewhat similar considerations apply to the idea of direct tax subsidy for teaching hospitals from state and local government, although perhaps not with the same cogency.

Other organizations and persons who make use of a large number of physicians, nurses and the like—such as the 6000 nonteaching hospitals, industry, and, in the case of nurses, physicians who use many nurses in their private offices—might well be expected to contribute financially toward their preparation.

In sum, the problems of providing capital funds for hospitals and of paying for the educational costs of teaching hospitals should be faced squarely and recognized for what they are: problems not of the hospitals alone, but of the whole community.

*Massachusetts General Hospital  
Boston 14, Massachusetts*

# Component Medical Societies



## ALLEGANY-GARRETT COUNTY MEDICAL SOCIETY

LESLIE E. DAUGHERTY, M.D.

*Journal Representative*

### *Allegany County Firsts:*

First physician to establish a residence in Cumberland—Dr. A. Murray—1784

Three members of the Founders of the Medical and Chirurgical Faculty—Dr. George Lynn, Dr. Benjamin Murrow, Dr. James Forbes—1799

First Worshipful Master of first lodge of Masons—Dr. John M. Lawrence—1816

First physician in Allegany County to graduate from the University of Maryland School of Medicine—Dr. Samuel Price Smith—1817

First native to become a physician—Dr. James McLean Smith—1825

First member, State Constitutional Convention—Dr. Samuel P. Smith—1851

First physician to be murdered—Dr. J. F. C. Hadel—1855

First physician to be given an honorary degree in medicine—Dr. James McLean Smith—1856

First physician to become mayor of Cumberland—Dr. Charles H. Ohr—1859

First physician to become a State Senator—Dr. Charles H. Ohr—1864

First meeting of the Medical and Chirurgical Faculty ever held in Allegany County—September 13-14, 1870

First Allegany County physician to be president of the Medical and Chirurgical Faculty—Dr. Charles H. Ohr—1873

First physician in Allegany County to resect the pylorus—Dr. James M. Spear—1891

First member on State Medical Examining Board—Dr. William W. Wiley—1892

First speech ever made in Allegany County by Sir William Osler, on the second occasion of the Medical and Chirurgical Faculty Semi-annual Meeting in Cumberland—1894

First X-ray in Allegany County—Dr. Christopher C. Jacobs—1903

First Baltimore and Ohio Railroad surgeon to locate in Cumberland—Dr. James T. Johnson, Sr.—1894



DR. JAMES T. JOHNSON, SR.  
(Surgeon)  
1894-1938

First Baltimore & Ohio R.R.  
surgeon to locate in Cumberland

## CAROLINE COUNTY MEDICAL SOCIETY

ROBERT H. WRIGHT, M.D.

*Journal Representative*

The Caroline County Medical Society was host to the Upper Eastern Shore Medical Group at the Brick Hotel, Denton, on January 16.

Most enlightening topics were presented: "Removal of Insects from the External Auditory Canal," by Dr. William T. Hammond; "Fifty Calories," by Dr. Thurston Harrison and "The Irish Brush Syndrome," by Dr. E. Paul Knotts.

Following these discussions, the group viewed a movie on Zoxazolamine presented by Charles Newton of McNeil Laboratory.

## FREDERICK COUNTY MEDICAL SOCIETY

LOUIS R. SCHOOLMAN, M.D.

*Journal Representative*

The regular December meeting of the Society was held Tuesday, December 17, at the Francis Scott Key Hotel, Frederick. The retiring president, Dr. James B. Thomas presided. The speaker of the evening was Dr. A. F. Abdullah, a neuro-surgeon who recently opened his office in Hagerstown. His subject was "Treatment of Acute Head Injuries." His talk was well balanced, beginning with historical evidence of skull trephining in antiquity and progressing to modern methods of diagnosis and treatment.



WILLIAM T. JOYCE

## MONTGOMERY COUNTY MEDICAL SOCIETY

JOHN J. CURRY, M.D.

*Journal Representative*

Doctor William T. Joyce began his tenure as President of the Montgomery County Medical Society and conducted the year's first meeting of his Executive Board on January 8, 1958.

Doctor Joyce served as Vice-President with Past President Merrill M. Cross of Silver Spring, Maryland and was elected to serve as the Society's President during 1958.

Doctor Joyce is a native of Minooka, Pennsylvania (now part of Scranton) and attended Scranton elementary and secondary schools. He received his Bachelor's degree from the University of Scranton and his degree of Doctor of Medicine from Georgetown. His internship and residency at Scranton State Hospital were followed by five years in the army during World War II. Doctor Joyce was discharged a Lt. Colonel, having served as commanding officer of an army general hospital.

Doctor Joyce settled in Bethesda, Maryland after his separation from the Service and established a private practice there. He is a member of the active medical staff at Suburban Hospital and has been a member of the Board of Trustees for the past five years. He lives with his wife and children at 4817 Broadbrook Drive, Bethesda and is a member of the Bethesda-Chevy Chase Chamber of Commerce.

Other elected officers of the Montgomery County Medical Society for 1958 are: Henry P. Laughlin, M.D., *Vice-President*, Henry W. Jaeger, M.D., *Secretary*, and Allen J. O'Neill, M.D., *Treasurer*.

The Executive Board of the Society consists of the following physicians: John G. Ball, Jacob W. Bird, McKendree Boyer, Merrill M. Cross (*Past President*), DeWitt E. DeLawter, John J. Curry, Peter N. Lombard, John O. Robben, Austin B. Rohrbaugh, Aaron H. Traum, and Merton L. White.

Montgomery County Medical Society now has more than 350 members and is the second largest medical society in Maryland.

## WICOMICO COUNTY MEDICAL SOCIETY

THOMAS C. HILL, JR., M.D.

*Journal Representative*

The December meeting of the Wicomico County Medical Society was held in the Watson Memorial Building, Salisbury, on Monday, December 9, 1957. The following officers were elected for the year 1958:

*President*, Dr. Joseph J. Tamasi; *Vice-President*, Dr. Hunter Mann, Jr.; *Secretary-Treasurer*, Dr. Theodore Smith; *Delegate*, Dr. Osborne D. Christensen; *Alternate*, Dr. Henry Briele. *Journal*

*Representatives*: Drs. Thomas C. Hill, Jr. and Raymond M. Yow. *Board of Censors*: Dr. Alfred S. Ledermann, *Chairman* and Drs. Seth Hurdle and Philip A. Insley. *Committee on Public Health*: Drs. Seth Hurdle and Robert W. Saunderson, Jr. *Planning Committee*: Dr. Philip A. Insley, Dr. John Bloxom (alternate). *Program Committee*: Dr. Andrew C. Mitchell, *Chairman*, and Dr. Eugene Linberg. *Diabetes Committee*: Drs. Wilber R. Ellis, Jr. and E. M. Beardsley. *Public Relations Committee*: Dr. Henry Briele.

Dr. Byrd S. Leavell, Professor of Medicine, University of Virginia, Charlottesville, gave an interesting discussion on "The Anemia Associated with Subtotal Gastrectomy."

## EDUCATION COUNCIL

FOR

### FOREIGN MEDICAL GRADUATES

After long planning, the Educational Council for Foreign Medical Graduates opened in October 1957.

It will perform many services for foreign medical graduates who wish to come to the United States. While it will not act as a placement agency, it will provide information about general conditions in this country and also those of special interest to each applicant. It will make available to properly qualified persons the means of obtaining ECFMG certification while still in their own countries.

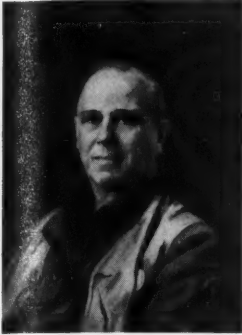
It will also inform hospitals, State licensing and Specialty Boards of the results of its screening.

For information as to fees and other details contact:

DR. DEAN F. SMILEY, *Executive Director*,  
Educational Council for Foreign Medical Graduates,  
1710 Orrington Avenue,  
Evanston, Illinois

## Necrology\*

### Erasmus Helm Kloman, M.D. 1885-1957



Dr. Erasmus Helm Kloman died on April 30, 1957 at his home, 600 Edgevale Road. He was 72 years of age.

Dr. Kloman was born in Warrenton, Virginia, the son of Edward Felix Kloman and Agnes Pickett Helm. He graduated from the University of Pennsylvania as a

pharmacist in 1902 and practiced pharmacy for a short time. Later he taught chemistry at the University of North Carolina. He was proud of the fact that he was younger than many of his pupils.

In 1910 he graduated from the University of Maryland Medical School and took his hospital training at the University Hospital. At the outbreak of the first World War, Dr. Kloman joined the first Maryland Field Hospital. He later was attached to the 116th Field Hospital.

After the war, Dr. Kloman opened an office at 44 W. Biddle Street for the practice of obstetrics and gynecology. He maintained this office and continued in active practice to the time of his death.

\* A. S. Chalfant, M.D., *Memoir Appointee.*

He was chief gynecologist at Maryland General Hospital for many years. Dedicated to the welfare of his patients, he was a skilled operator and a splendid teacher.

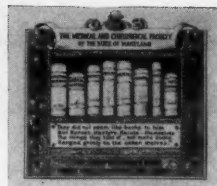
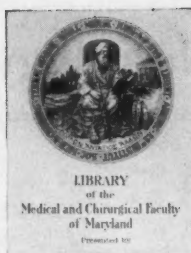
He was elected to the Board of Medical Examiners, representing the Medical and Chirurgical Faculty, in 1923 and served ably on this Board until 1955. He was President of the Board for several years and Secretary for one year. His consistent stand for a high calibre of medical ethics and his tireless work in support of necessary legislation made him a valuable member of the Board. He made many trips to Chicago representing the Board at the Annual Congress on Medical Education and Licensure.

Dr. Kloman was a man of many interests. Chief among his hobbies were duck hunting and the training of Chesapeake Bay retrievers. He also belonged to many professional organizations, was a Shriner and for many years a vestryman at St. David's Church. Outspoken and direct in his approach to people, he was a loyal and valuable friend and an opponent not to be taken lightly. His advice was sought by many and usually followed.

Dr. Kloman was married twice. His first wife, Louise Gephart Kloman, died in 1940. His second wife, Olivia Earp Kloman, survives him. He is also survived by a sister, a son Erasmus H. Kloman, Jr., and two grandchildren,

*Lewis P. Gundry, M.D.  
Relay Hill Hospital  
Relay, Maryland*





## Library

Louise D. C. King *Librarian*

"Books shall be thy companions; bookcases and shelves,  
thy pleasure-nooks and gardens." *Ibn Tibbon*

*"Upon the education of the people of this country  
the fate of this country depends"*

Benjamin Disraeli

House of Commons, 15 June, 1874

That the fate of our country depends more upon the medical than any other profession can not be gainsaid and that education should not stop with formal training is a truism, but alas, many of us do very little about it personally.

Libraries throughout the ages have been the source from which such education has been obtained, but because of the complexities and stresses of modern life and the bulk of such collections, these vast storehouses of information have become just that; waiting, it is true to serve well the energetic and book-minded reader, but—waiting.

Your Library Committee feels something should be done about this situation and to this end have tried to take the library to the reader, by periodically sending (free of charge) small collections of its newer books to County Medical Society Meetings.

Some few have appreciated and taken advantage of the opportunities offered them, but as it has been

instituted primarily for the physician whose past isolation, or who from other causes has gotten out of the reading habit, it will take time before the full value will be realized.

You who read, and who use the library can help not only by availing yourselves of this periodic opportunity, but also by interesting your fellow members. If the late Sir William Osler made bibliophiles and omnivorous readers by the gift of a single volume, you may do likewise with no financial outlay. By merely interesting one of your confreres in the library, or in a single volume from its collection you may arouse his intellectual curiosity. Borrow the volume yourself and see that the book falls into the hands of a fellow member who may enjoy it. Not all of us are born teachers, but each one may help to stimulate another so that once the habit is established and the desire present, the process of self education becomes limitless.

STATE OF MARYLAND DEPARTMENT OF HEALTH  
MONTHLY COMMUNICABLE DISEASE REPORT

Case Reports Received during 4-week Period, February 1-27, 1958

	CHICKENPOX	DIPHTHERIA	GERMAN MEASLES	HEPATITIS, INFECT. AND SERUM	MEASLES	MENINGOCOCCAL INFECTIONS	MUMPS	POLIOMYELITIS, PARALYTIC	POLIOMYELITIS, NON-PARALYTIC	ROCKY MT. SPOTTED FEVER	STREP. SORE THROAT INCL. SCARLET FEVER	TYPHOID FEVER	WHOOPING COUGH	TUBERCULOSIS, RESPIRATORY	SYPHILIS, PRIMARY AND SECONDARY	GONORRHEA	OTHER DISEASES	DEATHS Influenza and pneumonia
Total, 4 weeks																		
<b>Local areas</b>																		
Baltimore County.....	68	—	16	—	251	1	11	—	—	—	11	—	1	11	1	—	m-1	14
Anne Arundel.....	1	—	9	—	41	—	3	—	—	—	3	—	1	2	—	2	m-1	2
Howard.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Harford.....	1	—	—	—	14	—	3	—	—	—	1	—	—	2	1	—	m-1	2
Carroll.....	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	11
Frederick.....	6	—	—	—	1	—	—	—	—	—	—	—	2	3	—	—	—	2
Washington.....	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	m-1	1
Allegany.....	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	e-1	1
Garrett.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	m-1	—
Montgomery.....	36	—	19	1	65	1	2	—	—	—	44	—	—	4	—	—	m-2	4
Prince George's.....	8	—	3	—	9	—	1	—	—	—	5	—	—	12	—	2	m-2	8
Calvert.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Charles.....	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Saint Mary's.....	3	—	1	2	8	—	—	—	—	—	1	—	—	—	—	—	—	2
Cecil.....	—	—	—	—	—	—	—	—	—	—	4	—	—	—	—	—	—	—
Kent.....	1	—	—	—	26	—	—	—	—	—	—	—	—	1	—	—	—	1
Queen Anne's.....	—	—	—	—	2	—	—	—	—	—	—	—	—	1	—	—	—	1
Caroline.....	—	—	—	—	4	—	—	—	—	—	1	—	—	4	—	1	—	1
Talbot.....	—	—	—	2	11	—	—	—	—	—	1	—	—	1	—	—	—	—
Dorchester.....	1	—	—	—	—	—	—	—	—	—	—	—	—	2	—	5	o-2	3
Wicomico.....	1	—	—	—	5	—	—	—	—	—	—	—	1	7	—	3	—	4
Worcester.....	—	—	—	—	—	—	1	—	—	—	1	—	—	1	—	—	—	—
Somerset.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	3
<b>Total, Counties.....</b>	<b>126</b>	<b>0</b>	<b>48</b>	<b>5</b>	<b>438</b>	<b>2</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>72</b>	<b>0</b>	<b>5</b>	<b>55</b>	<b>3*</b>	<b>19*</b>		<b>63</b>
<b>Baltimore City.....</b>	<b>106</b>	<b>0</b>	<b>44</b>	<b>3</b>	<b>930</b>	<b>1</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>2</b>	<b>78</b>	<b>11</b>	<b>412</b>		<b>66</b>
<b>State</b>																		
Feb. 1-27, 1958.....	232	0	92	8	1368	3	41	0	0	0	92	0	7	133	14	431		129
Same period 1957.....	304	0	12	17	54	3	49	0	0	0	124	1	19	146	14	413		79
5-year median.....	518	1	51	22	700	6	70	0	0	0	245	1	24	154	19	473		84
Cumulative totals																		
<b>State</b>																		
Year 1958 to date.....	441	1	138	22	2903	7	86	0	0	0	155	0	19	289	41	1044		260
Same period 1957.....	604	1	31	23	116	6	468	0	0	0	205	1	42	314	40	1174		139
5-year median.....	1004	2	89	38	1263	13	500	2	0	0	444	2	67	314	43	1248		184

e = encephalitis.

m = meningitis, other than meningococcal.

o = ophthalmia neonatorum under 1 year.

\* Total includes reports from State Hospital.



# Maryland

## SOCIETY OF PATHOLOGISTS INC.



PAUL F. GUERIN, M.D., *President*

ROBERT D. SOLOMON, M.D., *Secretary*  
Sinai Hospital, Baltimore 5, Md.

### PATHOLOGY

#### A Specialty in the Practice of Medicine\*

Many years ago the practice of pathology was largely restricted to examination of tissues removed after death. The study of disease at this level over the years has placed a firm foundation under the practice of medicine. However, this beginning, and still important part of pathology, has led in some instances to the idea that many pathologists are interested only in whole organs, sectioned tissue, test tubes, reagents, etc., but not in the living patient.

Contrary to the above misconception, the hospital pathologist of today practices laboratory medicine. He is familiar not only with techniques but with their applications, limitations and interpretations. He offers advice on selection of tests most likely to be of help in diagnostic problems. Such careful selection of tests, in addition to aiding in diagnoses, reduces cost to the patient and lightens laboratory load. Because the pathologist is well versed in the clinical aspect of disease, he knows the importance of accuracy in laboratory procedures and therefore exercises constant control of established methods and searches for new ones.

In the microscopic study of biopsy material, the pathologist correlates signs and symptoms with morphologic change; very similar pathologic alteration can mean different diagnoses when occurring in different clinical settings. This is one of the reasons why it is often desirable to confer with the patient's doctor or to examine the patient in order to arrive at an enlightened interpretation of the biopsy.

Often the biopsy diagnosis is so definitive that it becomes the clinical diagnosis, and therefore, for practical purposes, largely dictates the indicated therapy. In such cases, it is evident that the pathologist as a medical consultant must keep in close touch with the physician and his patient.

There is no doubt in the mind of the medically informed that pathology is a specialty in the practice of medicine. This fact has been questioned occasionally, most often by administrative personnel. On this point, a ruling from the Attorney General's office of Maryland is pertinent: "It is evident from the decision of the various courts and the meaning of pathology that it is a branch of medicine. Therefore, those practicing pathology are regarded as practicing medicine . . .".

\* This article was scheduled for the February Journal but was inadvertently overlooked. The Editor regrets the oversight.

## CRITICAL SHORTAGE OF MEDICAL TECHNOLOGISTS

It has been known for some time that there exists a shortage of adequately trained medical technologists. That this shortage is fast becoming critical has been shown by recent surveys in Michigan, New Jersey and Maryland which reveal a deficit of certified technologists of 55 per cent, 39 per cent and 40 per cent respectively.

Although recruitment by national and local societies of pathologists and technologists is quite active, progress has been slow. It is not difficult to convince prospective students of the great importance of medical technology and to show them its interesting and rewarding aspects. Why then are so few persons choosing medical laboratory work for a career? Really effective recruitment can only be done by persons happy in their chosen profession. Many technologists are dissatisfied and therefore do not feel justified in recruiting people into the field as long as financial and professional returns are inadequate.

The problem of salary is an important one. Present salary levels are not commensurate with required educational background and experience, and compare most unfavorably with salaries of workers in other fields demanding equal or less training and responsibility. This discourages prospective students, leads to a high turnover rate, and practically excludes men from the profession.

Concern over professional status is also of great importance. The pathologist recognizes the professional requirement of the technologist's work. He knows of the extended specialized education and training necessary; of the required integrity and responsibility and of the necessary capacity for independent thought and action. However, many technologists feel that they are often not accepted in the hospital community as members of the professional team. They sometimes hear themselves referred to as "just a technician." While technician is an honorable word, the manner in which it is used is often uncomplimentary. Frequently technologists are faced with work overloads which foster errors in techniques and prevent evaluation of new procedures. Others are required to spend much of their time performing tasks which do not make use of their training and experience. It is understandable that in such an atmosphere the technologist feels that the importance of his work is not appreciated; dissatisfaction necessarily results.

The problems outlined here are very real. Their correction is the responsibility of the pathologist, the technologist, the clinician and the hospital administrator, working together in an atmosphere of respect for the professional position of all concerned.



# Woman's Auxiliary Medical and Chirurgical Faculty



MRS. HOMER ULRIC TODD, SR., *Auxiliary Editor*

## CONVENTION TIME IS HERE

MRS. DAVID S. CLAYMAN\*

The Ninth Annual Convention of the Woman's Auxiliary to the Medical and Chirurgical Faculty of the State of Maryland will be held at the Sheraton-Belvedere Hotel in Baltimore April 16th and 17th, 1958.

Mrs. Frank Gastineau, First Vice-President of the Woman's Auxiliary to the American Medical Association will be our guest speaker at the Luncheon on April 16th. Her National positions in the Auxiliary were Director, 1950-52, AMEF Chairman for four years and Third Vice-President 1956-57. She has been an Auxiliary member for 31 years and has always been an active participant. I know you will enjoy hearing Mrs. Gastineau speak at our luncheon and will especially enjoy meeting this stimulating woman. We also expect a number of officers from our neighboring states.

This should be an especially interesting convention because we hope to have many newcomers with us. Both Anne Arundel and Carroll Counties are considering joining us this year. It will be a pleasure to meet these new members and make them welcome.

Registration will be between 9:30 and 10:00 a.m. outside the Blue Room on the second floor. The meeting will begin at 10 a.m. in the Blue Room where we will have the election of the new State Officers and a program. So ladies, make plans to attend the meeting at 10:00 a.m. and be certain to send in your checks for the luncheon to be held jointly with the State Medical Society in the Ballroom at 12:30 p.m.

Parlor D has been reserved on the second floor of the Sheraton-Belvedere Hotel for the use and convenience of all ladies attending the convention. Members of the Auxiliary will act as hostesses and we hope you will feel free to use these facilities.

\* President, Faculty Woman's Auxiliary.

On Thursday morning, the Past-President's Breakfast will take place in the Blue Room at 9:00 a.m. to be followed by the Post-Convention Board Meeting.

A most interesting program has been planned for this convention. Won't you please make a special effort to come this year? Urge your husband to attend his meetings, too. I shall look forward to greeting each of you personally at the convention. See you there!

## DOCTOR'S DAY

MRS. HOMER U. TODD, SR.

*A Salute to Our Doctors!*

To honor "The Man in Our Life" we set aside March 30th as his special day; a day which should bring to the attention of the public his many fine qualities as a physician and as a citizen of his community.

Though he may make light of the expression as being over-emotional, he is a "dedicated" man. His life revolves around those who have faith in his ability to help them. Conversely this same faith, instilled by every sympathetic doctor, has a profound effect on the healing of each sick body. Could any calling be more soul satisfying?

Doctor's Day—March 30th—is a project inaugurated by the Woman's Auxiliary to the Southern Medical Association. A physician's wife in Georgia suggested that a day annually be observed on which to honor members of the medical profession, both living and dead. This day is to be marked by some act of kindness to those who, by daily devotion to their duty of service to humanity, minister to our health and welfare.

The date "March 30th" was not chosen at random but to commemorate one of the greatest discoveries in medical history. Dr. Crawford W. Long, a famous Georgia physician, in 1842 first used ether as an anesthetic agent in a surgical operation



—thus providing mankind with freedom from pain during surgery.

The red carnation—the symbol of Doctor's Day—was adopted by the Auxiliary in 1949. The flower—its meaning is “divine,” “rejoicing”—appeared on earth for the first time when Christ was born.

*Crown*—coronation—denotes honorary distinction.

The color “red” denotes masculinity, love, charity, sacrifice, bravery and courage.

*All Hail to Our Doctors.*

### WHAT'S IN A NAME?

Publications from the Medical Auxiliaries of other States rival our “Hygeia Filiae” with the following distinctive names:

Arizona—The Mail Box

Colorado—Mile High News

Florida—Florida Medaux

Indiana—The Hoosier's Doctor's Wife

Louisiana—News and Views

Kentucky—Blue Grass News

Maine—Maine Informer

Massachusetts—The Bay State

Minnesota—The Gopher Doctor's Wife

Montana—Treasure State Nuggets

New Hampshire—Granite

New Mexico—La Capsula

New York—Distaff

Oklahoma—The Sooner Physician's Wife

Oregon—The Oregon Grapevine

Pennsylvania—The Keystone Formula

Wisconsin—The Badger Doctor's Wife

### AMERICAN COLLEGE OF PHYSICIANS

The following recently were elected by the Board of Regents as Associates or Fellows of the American College of Physicians:

Associates: Drs. Robert Edward Bauer, Francis Joseph Borges, Milton Bernard Kress, Donald Willis Mintzer, Thomas Earle Van Metre, Jr., Patrick Brendan Storey and Robert Caywood Duvall.

Fellows: Drs. Carroll Lockard Conley, Frank Willard Davis, Jr., Edward David Freis and Benjamin Rothfield.

The last two physicians named in each group are associated with the Veterans Administration.

#### OPHTHALMOLOGISTS, OTOLARYNGOLOGISTS—ATTENTION!

The Gill Memorial Eye, Ear and Throat Hospital announces refresher courses in Ophthalmology, Otolaryngology and allied specialties to be given at its annual "Spring Congress." The meeting will be held April 14 through 19, 1958 at the Patrick Henry Hotel, Roanoke, Virginia.

For details concerning this program consult the brochure on file in the Library of the Medical and Chirurgical Faculty, 1211 Cathedral Street, Baltimore.

#### LIBRARY HOURS

Monday, Wednesday and Friday  
9 A.M. to 6 P.M.

Tuesday and Thursday  
9 A.M. to 5 P.M.

Saturday  
9 A.M. to 1 P.M.

#### MEDICAL LIBRARY ASSOCIATION

June 2-6, 1958

Headquarters: Hotel Kahler  
ROCHESTER, MINNESOTA

Theme of the meeting—

"Advances in Medical Library Practice"

Additional information may be obtained from:

Mr. Thomas E. Keys, Librarian  
Mayo Clinic  
Rochester, Minnesota